

A Buffett Approach to Identifying Value Plays: The Case of Martin Marietta

Santiago Escobar
Bluejay Advisors

Reinhold Lamb
University of North Florida

John McEldowney
University of North Florida

This paper presents a systematic methodology for identifying potential value plays. The foundation of the process is a collection of metrics similar to those used by Warren Buffett and focuses on his definition of “durability of competitive advantage”. After a potential value play is identified, and a current economic analysis is applied to the candidate, 6 variables from the Income Statement and 9 from the Balance Sheet form the parameter base whereby the strength of the company is measured. This 15-point checklist and ensuing analysis and valuation are applied to Martin Marietta, but can also be a useful process for identifying other worthy value play candidates. The steps can also be applied as a format or template in an Investments course for an equity analysis assignment.

Keywords: Warren Buffett, value play, valuation, durability of competitive advantage

INTRODUCTION

Most investors, even those with a simple interest in personal investing, have heard of Warren Buffett. He is considered one of the most successful investors of all time. His methodology involves a technique called “value investing”. The idea behind value investing is not that different from the idea behind buying any other good in the economy. Consumers constantly look for good-quality products they can acquire at affordable prices. Occasionally, they might find that even the best products can be discounted to attractive prices relative to inferior alternatives. Value investing, first introduced by Benjamin Graham and David Dodd in their 1934 text *Security Analysis*, specializes in finding that type of bargain in the stock market. Buffett was a student of Graham at Columbia University, and adopted value investing as his investment philosophy. Even though a comprehensive value analysis entails many different tasks, they all revolve around answering three main questions about an asset or stock:

1. Is the asset cheap?
2. Does it deserve to be cheap?
3. Is there anything that will make the market realize it is cheap, and, consequently, undervalued?

This paper develops a method or framework for identifying worthy value play candidates following a format similar to that of Warren Buffett. The variables that provide answers to the three questions above

are synthesized into a 15-variable checklist which identifies potential value play candidates that may be considered worthy for investment consideration. First, this paper describes some of the characteristics of growth and value companies as most firms will fall into one or the other category. Then it presents a process for searching for candidates that have “durability of competitive advantage” – the primary characteristic Buffett developed to identify value play candidates. Economic and financial analysis is synthesized into a 15-point checklist to judge the worthiness of the value play candidate. Valuations are calculated and the paper concludes with a recommendation about the worthiness of the value play.

GROWTH AND VALUE DISTINCTIONS

Warren Buffett is interested only in value companies, so the definitions of growth and value serve as initial filters for isolating a sample of potential value plays. Growth companies generally exhibit the following characteristics:

- * Higher P/E than the broader market
- * Higher earnings growth than the broader market
- * Reinvest in themselves to finance growth, rather than distribute earnings directly to shareholders
- * More volatile than the broader market

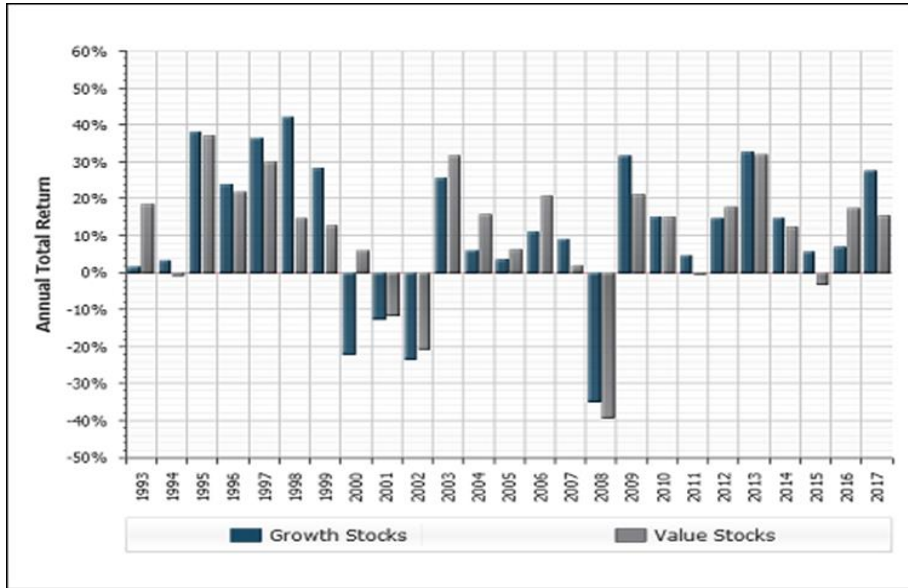
Value companies, on the other hand, look different and can be identified by the following:

- * Lower P/E than the broader market
- * Price is at a discount to the true (intrinsic) value
- * Pay dividends, rather than reinvest earnings back in the company
- * Less volatile than the broader market in the long run

Given these definitional differences, growth and value stocks are different and, consequently, do not perform in the same way over time. Figure 1 presents the annual average returns for growth and value stocks for a recent 25-year period. During 11/25 years, value outperformed growth. Growth beat value in 14/25 years. There are many reasons for the differences in performance, including the state of the economy, tax issues, and general investor sentiment. These reasonings are beyond the scope of this paper. Rather, our thesis is to navigate the fluid markets – like Warren Buffett – to find those plays meeting the value play definition and whose values are not fully recognized by the market.

Unfortunately, simply identifying companies based on the factors above doesn't necessarily constitute a value play and a good investment. All companies that trade at P/E multiples below their competitors or the broader market may still not be good value plays. Usually cheap stocks, like most cheap products, are cheap for a valid reason. Prices can be depressed as a result of multiple circumstances: narrow margins, slow growth, weak management, excessive leverage, poor liquidity, strong competition, and so on. So, the task of the value play analyst - like Warren Buffett - is to also consider the three questions presented earlier. For example, one of the most widely followed companies, General Electric (GE), was trading at around \$30 per share in 2017. By mid-2019, GE was at around \$10. Figure 2 traces the performance of GE during this period. Is GE cheap? Does GE deserve to be cheap? Is there a catalyst that will make the market realize that GE is cheap? The fact that the price of a well-known company like GE dropped 67% does not automatically create a good value opportunity. Fundamental changes can disrupt the value of a company in a short period of time. GE suffered from a combined weakening in four of the most delicate value drivers of a company: cash flow, management, credit, and industry outlook.

FIGURE 1
ANNUAL RETURNS OF VALUE AND GROWTH COMPANIES: 1993-2017



Applying the three questions to GE:

1. Is GE cheap? – Yes. A 67% discount certainly appears cheap for a widely followed, mature, blue-chip company.
2. Does GE deserve to be cheap? – Maybe. We need more information to explain why a company like GE declined by 67% while the broader market, represented in Figure 2 by the S&P 500 Index, advanced.
3. Is there anything that will make the market realize GE is cheap? Maybe, but that catalyst needs to be clearly identified.

A good value play candidate would answer Yes to each of the three questions. Since GE offers one Yes and two Maybes, it may be a marginally worthy value play candidate, but more information will need to be obtained.

FIGURE 2
GENERAL ELECTRIC RETURNS RELATIVE THE S&P 500 INDEX: 2010-2019



PEER AND TIME HORIZON CONSIDERATIONS

Let us pause here and remember that the market is usually more concerned with relative numbers and movements than it is with nominal values. For example, consider a dive in the price of a company that just announced a 7% annual growth in sales. By itself, the rate sounds strong and the selloff sounds unjustified. However, the company might be operating in a market in which all peers are experiencing double-digit growth, or it might be showing a steep downward trend from recent years' rates. In essence, value analysts are not only concerned about avoiding things like slow growth or narrow margins, but also about avoiding things like *slowing* growth and *narrowing* margins.

Table 1 presents two performance metrics among peers in the software industry. Considering the measure of Enterprise Value / Total Revenue, an investor might conclude that SPS Commerce (SPSC) is an attractive value play because it trades at a lower revenue multiple than its peers (6.9X vs 9.5X Median). However, this investor might be failing to consider that while SPSC had a 1-year revenue growth of 12.8%, which in itself sounds impressive, half of its peers had growth that exceeded 30%, and SPSC ranked 9 out of 10 in growth. Sometimes lower multiples simply reflect the appropriate pricing of structural differences among similar companies.

TABLE 1
SALES AND MARKETING SOFTWARE INDUSTRY GROWTH METRICS

Company	EV/Total Revenue	1-Year Growth% in Total Revenue
PROS Holdings (PRO)	7.6X	16.7
Anaplan (Plan)	19.7X	42.9
Descartes Systems (DSG)	9.9X	15.9
Five9 (FIVN)	12.2X	28.7
SVMK (SVMK)	8.3X	16.3
HubSpot (HUBS)	12.9X	36.6
Pluralsight (PS)	9.1X	39.1
Yext (YEXT)	9.5X	34.1
Benefitfocus	5.9X	9.2
SPS Commerce (SPSC)	6.9X	12.8
Mean	10.6X	27.3
Median	9.5X	31.2

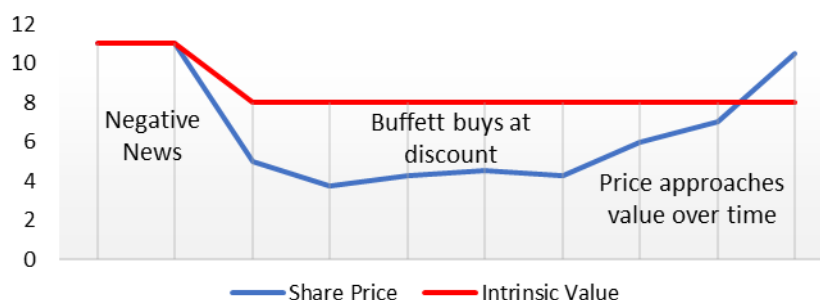
Another issue to consider is the investor's time horizon. After answering the first two questions successfully, an analyst can be considerably certain that he or she has found a bargain. The problem with limiting the analysis to this premise is that some cheap stocks can be cheap forever. In the context of this paper, "forever" is anything longer than the investor's time horizon. This simple concept goes back to the 1st Law of Sir Isaac Newton presented in *Principia Mathematica Philosophiae Naturalis*: "an object at rest will remain at rest unless acted upon by an unbalanced force" (1686). The mission of the value analyst is to look for those "unbalanced forces" that are likely to redirect the price of the stock upward; we usually refer to these forces as *catalysts*.

THE SEARCH PROCESS

The remainder of this paper considers Martin Marietta (MLM) and constructs a value play checklist similar to the process developed by Warren Buffett. The first step in value investing is to look for potential candidates that appear to be trading below their 'fair value.' In theory, a company should be worth the

present value of all future cash flows, so a deviation from that number would constitute an unfair valuation. There are other ways to estimate fair value, like looking at comparable companies and assessing their relative valuation based on multiples. We will discuss these methods further in the Valuation section. Nevertheless, Buffett considers a worthy discount to be at least 20% for operating businesses. That is, the market price should be at least 20% below the valuation. Furthermore, Buffett looks for companies trading at a discount of at least 30% to liquidation value. If either of these metrics is satisfied, the company is considered cheap and may be a worthy value play candidate. Perhaps some negative news triggered a dramatic drop in price substantially below the fair value. If the analyst is correct, then eventually the price will begin to appreciate over time, approaching the fair value or even exceeding it. Figure 3 presents the life cycle of a potential value play. If the value investor is confident in the analysis, then the stock is acquired sometime between the negative news that triggered the significant drop and before the intersection of the convergence to divergence of price and value.

FIGURE 3
VALUE PLAY LIFE CYCLE



Durability of Competitive Advantage

Buffett’s primary driver in the companies he considers for a value play are those that exhibit what he calls – “durability of competitive advantage”. The durability or consistency and permanence aspect involves unique products or services. For example, Dairy Queen has a unique product that is not easily replicated. This feature gives Dairy Queen a niche market and a competitive edge or advantage. On the service side, GEICO has durability and competitive advantage through their branding and method of insurance delivery. Durability of Competitive advantage thereby produces consistency in profits that require little change to the product. The competitive advantage does not require major revisions or expansions to the product. It’s already in the sweet spot. Companies with durability of competitive advantage usually have little debt, and therefore little interest expense. The company generates internal cash flows to expand and buyback stock, lifting earnings, and lifting the stock price. In a way, durability of competitive advantage gives the company a type of money pump. Following Buffett’s methodology then, a value play analyst would look at companies through the lens of durability of competitive advantage, and if they demonstrate those characteristics, then a thorough value analysis ensues.

Screening

One of the most important skills value analysts learn is how to leverage the technological capabilities they have on hand, such as Bloomberg, Capital IQ, Morningstar, and Eikon. Bloomberg offers a very straight-forward screening function - <EQS> - whereby an analyst can compile an iterative short-list of stocks from the broad equity spectrum. Some of the metrics this paper considers in discriminating among stocks are related to price (P/E, P/S, EV/EBITDA) because the method is looking for value plays. Other metrics involving profitability or cash flow generation are considered secondarily (ROE, ROA, ROIC, FCF, DEPS). As stated earlier, the main idea is to look for cheap companies that are also good companies, so the screening criteria should reflect that philosophy.

The finance literature generally finds that low P/E ratios tend to drive abnormal returns in the market. Fama and French (1992, 1993) provide evidence that a similar relationship exists with P/B ratios. A low multiple means investors are paying a lower price for the same unit of earnings or assets. Investors also sometimes buy companies with higher P/E or P/B multiples because they have high-growth expectations. Think of buying a value stock like buying a product for which you have low expectations. There is naturally a higher possibility of being positively surprised than if you buy a product for which you have very high expectation of satisfaction. DeBondt and Thaler (1984) use behavioral finance to relate this phenomenon to the overreaction of investors who tend to exaggerate their expectations on stocks beyond reasonable levels. Lakonishok, Shleifer, and Vishny (1994) show that those loser stocks that have been beaten down by the market usually provide a sort of value premium in the following years.

The screener in Figure 4 shows the security universe starts with 1,055,816 companies and is narrowed down as closely as desired, depending on how many filters are constructed. These filters are applied on a relative instead of an absolute basis. For example, the screen is pulling those companies that have a P/E that is equal to or lower than the median P/E of its relative sector, which is one of the characteristics of a value stock. It would be unfair to compare a healthcare provider to a technology firm or to a state utility, because companies in those sectors regularly trade at different levels due, in part, to the degree of regulation they are subject. Some other criteria apply to businesses across the board on an absolute basis like positive free cash flow and positive earnings. Even though Graham (2007) proposed a very detailed list of criteria, adjusting the filters to match different circumstances provides increased flexibility to the strategy. Key examples of this flexibility have emerged from studying foreign stock markets, like Palazzo, Reed, Savoia, and Securato (2018) who recently tested Graham’s hypothesis in the Brazilian stock market.

**FIGURE 4
SCREENING CRITERIA IN BLOOMBERG**

Selected Screening Criteria	Matches	
Security Universe	1055816	
51) :: Trading Status: Active	339870	⊗
52) :: Security Attributes: Show Primary Security of company only	71132	⊗
53) :: Exchanges: North America	17022	⊗
54) :: LF Return on Common Equity >= Relative Sector[Median, LF Return on ...	1964	i ⊗
55) :: T12M Diluted EPS >= 0	1937	i ⊗
56) :: Current Price Earnings Ratio (P/E) <= Relative Sector[Median, Curren...	1025	i ⊗
57) :: Current Price to Sales Ratio <= Relative Sector[Median, Current Price ...	546	i ⊗
58) :: LF Net Income Margin Adjusted >= Relative Sector[Median, LF Net Inc...	235	i ⊗
59) :: LF Return on Assets >= Relative Sector[Median, LF Return on Assets, S...	130	i ⊗
60) :: T12M Free Cash Flow > 0 Million	101	i ⊗
61) :: Current Enterprise Value/EBITDA Adjusted < Relative Sector[Market C...	81	i ⊗
62) :: LF Return on Invested Capital > Relative Sector[Average, LF Return o...	38	i ⊗
63) Add screening criteria		

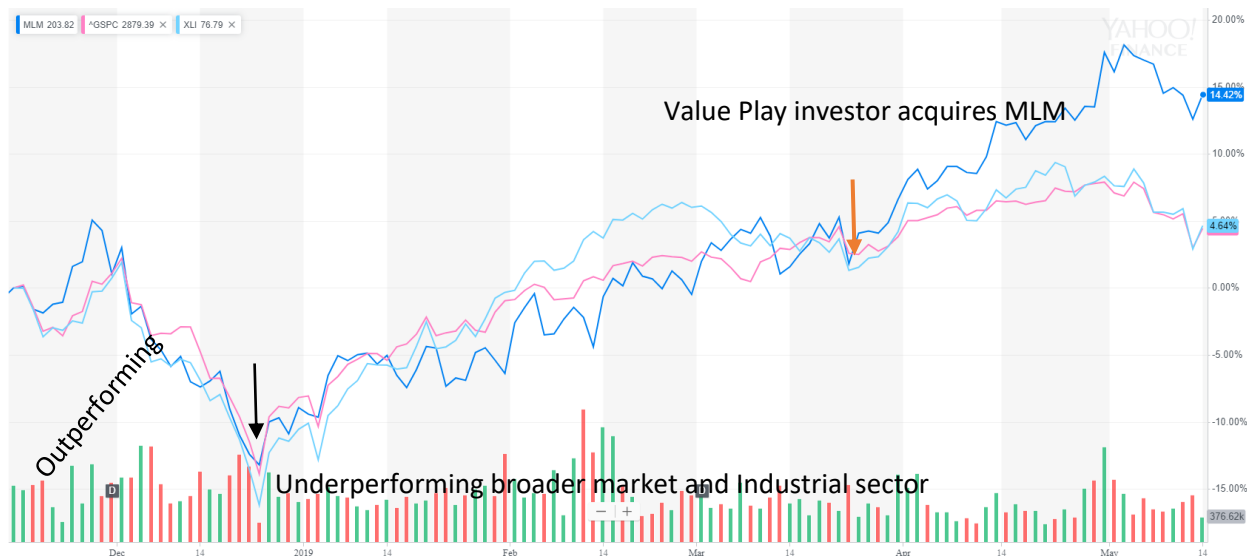
1) See Results | WATC >>

Figure 5 shows the relative performances of Martin Marietta (dark blue), the S&P 500 Index (red) and the Industrial Sector (green). The left side of the figure shows MLM outperforming and then abruptly dropping and underperforming. The black arrow shows the depth of the drop. The red arrow indicates the beginning of a divergence between MLM with the market and sector and is the point where the value investor begins experiencing positive alpha. The area between the arrows is where the value investor performs the analysis that this paper describes in determining if MLM is indeed cheap, does not deserve to be cheap, and may be a worthy value play based on the expectation of a significant government-induced infrastructure investment.

ECONOMIC ANALYSIS

After the initial screen, a more qualitative analysis on the remaining sample can be considered. It is usually appropriate to analyze the current economic environment to scan for possible catalysts and define what sectors or industries could be favored in each scenario. The *Wall Street Journal* is a good source to find relevant events and developing stories. For example, if it is October 2018, analysts may recognize the Mid-Term Election is held in a month. They would then attempt to form an opinion about market expectations and then make a bet. A natural response to this new information would be to look for predictions about elections results to better understand how the situation is unfolding. Then, one can weigh that information to determine the smartest place to allocate investments. There are many sources where analysts can find statistics and opinions about events going on around the world. For example, Figure 6 presents an election result prediction model that is updated several times a day by *The Economist* and contains dynamic graphs. For this particular 2018 election, the odds were leaning towards Republicans keeping the Senate and Democrats flipping the House.

FIGURE 5
MARTIN MARIETTA CHEAP SCREEN



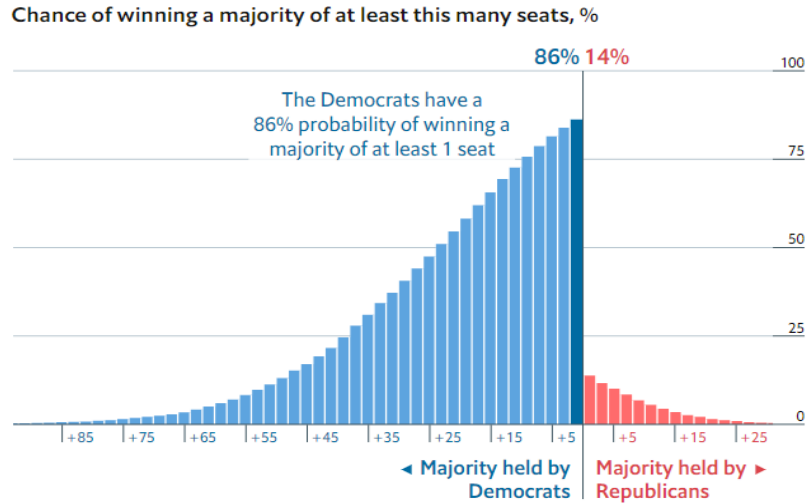
When it comes to analyzing a possible play, analysts are better off leaving their political sentiment aside. What really matters at this point is the impact the different results could cause on the market and, more specifically, on Martin Marietta (MLM). The following questions would need to be considered:

- * Would a split Congress create a gridlock?
- * What are some initiatives Democrats have been waiting to push for?
- * What have Republicans tried to accomplish in the Senate?
- * What are some initiatives the two parties could agree on?

Analysts can use the <NSR> function on Bloomberg, which has the latest headlines in the investment community, and narrow it down by a specific event to see if there are any relevant stories. Think about the possibility of some of those events unfolding, or at least what other investors may think that unfolding will cause. Prices generally move by expectations. For example, in Figure 7, even though Martin Marietta may not be mentioned directly in the article, the context of the information may involve MLM's industry and, consequently, Martin Marietta itself. Infrastructure spending involves investment in roads, bridges and other national construction – which is the kind of work MLM specializes in.

Furthermore, by looking at different sources and types of information, one can identify trends that can guide where expectations are moving. Considering the transcript in Figure 8 of one of the President’s interviews can create a pattern with the news, the statistics, and the general logic around the Midterm Elections. In this case, it looks like gaining exposure to the local infrastructure market could be a good idea as this segment could see an increase in demand if elections turn out as expected. Martin Marietta would thereby be expected to benefit greatly given it is a natural resource-based building materials company.

**FIGURE 6
ELECTION RESULT PROBABILITIES**



**FIGURE 7
<NSR> SCREENER RESULT IN BLOOMBERG**

Democrats Eye Push for Infrastructure Plan If They Retake House


- Leaders have discussed seeking major spending plan in 2019
- Disagreements on funding doomed past efforts and could again

By Mark Niquette and Alan Levin

(Bloomberg) -- Democrats are planning to pursue a major U.S. transportation and infrastructure measure if they retake control of the U.S. House in the Nov. 6 midterm elections, but the same question that helped stall Donald Trump’s trillion-dollar initiative remains: How would it be funded?

Representative Peter DeFazio, who’s in line to become chairman of the House Transportation and Infrastructure Committee, has said Democrats would seek a spending measure for roads, bridges and other public works if they take power. Nancy Pelosi, who could become speaker again, said it may be something Democrats can do with the Republican president.

“One of my themes is build, build, build,” Pelosi said at an Oct. 22 event hosted by CNN. “Build the infrastructure of America from sea to shining sea. Not only surface transportation but broadband and water systems.”



TARGET SELECTION

At this point, a value analyst usually has a list of cheap targets and a handful of key events that might serve as catalysts in the future. Going through the main descriptions of the list of targets is helpful to see what types of businesses and end markets are represented in the screening results. If screening in Bloomberg, a helpful tip is using the filter to group the stocks by sector, and then clicking through each name to access the description <DES> screen. By cross-examining these two sets of information, the analyst can choose a stock to evaluate further. In the example we have been discussing, the analyst could make the case that Martin Marietta (MLM) is a prime candidate to benefit from an infrastructure bill - or at least gain investors' interest if they think Democrats will indeed flip the House and push for increased spending. The selection of this potential value stock is based on a combination of a bottom-up analysis, which starts with the company-specific situation, and a top-down analysis of the broad economic environment. This combination allows the value analyst to neither buy an overvalued stock in an attractive market, nor a cheap stock in an unattractive market.

FIGURE 8 INTERVIEW TRANSCRIPT

VARNEY: Is that part of the implementation of the infrastructure rebuilding?

TRUMP: It's part of that and it's going to start, infrastructure is going to be starting after the mid terms and we think that's going to be an easy one. But we're going to infrastructure, we're going to have everything, just more of the same. Look what's happened with our country and if you look at China they're down \$20 trillion and we're up \$11.7 trillion dollars in worth, that's a tremendous number.

FINANCIAL ANALYSIS

This next section dives deeper into the target's financials to verify there are no red flags depressing its price, which goes to question #2 – Does it deserve to be cheap? Because not all cheap stocks are good value plays, this analysis focuses on determining if the low price is justified. Unfortunately, many investment ideas fail this analysis as analysts uncover worrying data that justifies the stock's discounted price. Even though many studies suggest low trading multiples by themselves provide abnormal returns, other studies question these results. Kok, Ribando, and Sloan (2017) expose how many of these low-multiple stocks represent inflated accounting numbers instead of underpriced securities. Good value analysts learn to not fall in love with ideas too soon and are prudent enough to return to Step 1 when necessary.

Financial Health

The most practical way of analyzing if a company is financially healthy is calculating a few ratios out of the balance sheet. Even though commonly-used investing websites like Morningstar, Yahoo Finance, or Capital IQ will provide most of them, analysts will find it safer to download the company's 10Ks and 10Qs and calculate the ratios themselves. This is what Warren Buffett does. The main purpose of this step is making sure the business is liquid, solvent, and reasonably leveraged. If we consider MLM's balance sheet and income statement over the last five years and compute a few ratios, we can get a quick snapshot of the company's financial health. Table 2 summarizes the results.

The cash conversion cycle and the current ratio provide a picture of MLM's liquidity. Because the company is usually involved in long-term projects that can take a long time to come to fruition, making sure it has a quick cash cycle becomes key for investors. MLM takes about 90 days to convert its

investments into cash, meaning management keeps the company more liquid than its average project so it can run smoothly. A current ratio oscillating around 2x provides the company with enough assets at all times to take care of its short-term liabilities. This is usually not a concern for long-standing, stable companies like MLM. However, it is always better to err on the safe side when considering these metrics as a drastic change in any of them can place a significant burden on a company's value.

TABLE 2
MARTIN MARIETTA LIQUIDITY RATIOS

Financial Health	FY 2014	FY 2015	FY 2016	FY 2017	YTD
Cash Conversion Cycle	81.77	80.84	82.78	90.22	—
Current Ratio	2.63	2.95	1.99	3.79	1.74
Debt to Assets	22.26	22.91	23.31	33.81	32.67
Debt to Equity	36.93	39.26	41.08	64.93	63.05
Equity to Assets	60.27	58.31	56.71	52.04	—
Interest Coverage	4.83	7.01	8.35	7.59	5.25
Altman's Z-Score	2.97	3.53	4.40	3.61	3.53

The debt to assets, debt to equity, and interest coverage ratios are used to measure a company's leverage and solvency. This assessment is particularly important for companies in the materials sector, which tends to accumulate high levels of debt due to the capital-intensive nature of their operations. MLM has consistently generated plenty of earnings to cover its interest payments on debt commitments, which still look very reasonable. An interest coverage of 5.25 means MLM had earnings more than 5 times larger than the outstanding interest on all its fixed obligations.

MLM's healthy balance sheet allows the company to focus on generating profit and creating more opportunities for its shareholders, a position rarely found in an overleveraged industry. A highly solvent materials company is not only relatively safe from bankruptcy, but it also owns an important competitive advantage. Placing these numbers in context helps to understand their possible effects in real life. The stability of this company produced continuous dividends despite the 2008 housing crisis – a mark of responsible debt management.

Finally, Altman's Z-score combines different financial ratios to come up with a simple risk measure regarding a firm's financial health. When discussing the importance of financial statement interpretation in contemporary financial analysis, Kulchev (2017) highlights the significance of looking at this metric as it provides a comprehensive view of a company's financial position. A score above 2.00 is usually associated with good financial health, while anything below 0.90 could indicate serious bankruptcy risk. Analysts need to do this kind of 'background check' to verify the company has been stable in the last few years and has positioned itself attractively within its industry. Computing easy metrics like the Altman's Z-score, the cash conversion cycle, and the current ratio can give the analyst a quick safety check regarding the company's credit strength and liquidity position.

Value investors want to buy stocks that will outperform the market. At a more fundamental level, they want to invest in good businesses. Apart from having strong balance sheets, good businesses also need to generate money from their day-to-day operations. Understanding how efficiently companies transform their top line revenue into net earnings, and ultimately cash, is one of analysts' most important jobs; this is what ultimately defines whether the equity value of a company will grow or shrink in the future. Some of the ratios commonly used to measure profitability are shown Table 3. ROE, ROA, and ROIC connect

profitability with items from the balance sheet, while the various margins evaluate efficiency at the different levels of the income statement. MLM has positive and improving metrics across the board.

Return on assets (ROA) measures how efficiently the company uses its assets to generate profit. For instance, in 2014 MLM was generating \$2.93 of profits for every \$1 of the assets. However, it has steadily gotten better over the past 4 years to the point that it now generates over \$8 of profits for the same \$1 of assets.

Return on equity (ROE) takes that analysis a step deeper because even though a company can get more efficient at utilizing assets, it might vary its relative amount of assets over time. ROE takes ROA and multiplies it by leverage to get a more complete picture of profitability. In other words, it tries to answer whether MLM is using its debt to become more profitable. A more leveraged company adds risk to its balance sheet but also increases its earnings-generating power. MLM's ROE has consistently been about double its ROA, indicating that the company has maintained its leverage relatively constant and most of the return on total equity can be attributed to a more efficient use of its assets.

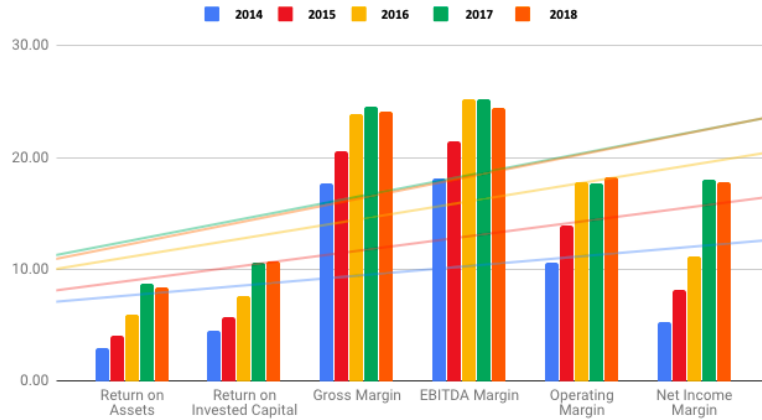
**TABLE 3
MARTIN MARIETTA PROFITABILITY RATIOS**

Profitability (%)	FY 2014	FY 2015	FY 2016	FY 2017	YTD
Return on Equity	5.26	6.84	10.34	16.13	16.01
Return on Assets	2.97	4.07	5.97	8.76	8.40
Return on Inv. Capital	4.50	5.69	7.62	10.61	10.72
Gross Margin	17.66	20.54	23.88	24.51	24.117
EBITDA Margin	18.18	21.41	25.21	25.15	24.38
Operating Margin	10.65	13.96	17.74	17.66	18.27
Net Income Margin	5.26	8.16	11.14	17.99	17.80

If analysts want to know how well management is allocating investors' funds on new projects, they can analyze return on invested capital (ROIC). This is arguably the most important metric you can consider when assessing the viability of an investment. In theory, the main purpose of financial markets is allocating funds to those places where they can be used more efficiently. Therefore, at least in the long run, markets should favor those companies generating high ROIC. If MLM was worth X dollars in 2014 when it had a 4.5% ROIC, it should be worth more than X today when it generates more than double the returns for each invested dollar.

Even though the initial screening process helped to narrow down the list to companies that are currently more profitable than their peers, it is always good to take a step back and look at a longer time period. Using graphs to complement tables can make it easier to visualize trends. As evidenced by the positive trend lines generated in Figure 9, the company is getting increasingly profitable as time goes by. MLM is also getting more effective at utilizing its assets and its invested capital to generate profits, which means it is more worthy of our investment now that it was four years earlier.

**FIGURE 9
MARTIN MARIETTA FINANCIAL SUMMARY**



Relative Profitability

Because we are mostly concerned about why MLM is trading at lower multiples than its competitors, it also makes sense to put some of these metrics into context and compare them against an external benchmark. Analysts should keep in mind the importance of relative metrics, as absolute values in isolation can be misleading. Time trend analysis and industry comparisons provide a more comprehensive context to those numbers considered on the initial value filter. Table 4 gives us a different perspective on some of the same metrics analyzed before. It is encouraging to see MLM surpassing the Building Materials industry average on five out of the six profitability indicators. In this case, it certainly does not look like MLM deserves to be cheap.

If a company trades at lower multiples than its industry average, then enough of its performance metrics should also be lower for this pricing difference to make sense. There are companies that consistently trade at lower or higher multiples than their peers without necessarily being mispriced. This might sound confusing at first, but it helps to understand that no two companies are exactly alike. The fact that two companies are similar and operate in the same industry does not necessarily imply they also have the same competitive advantages or growth prospects. An industry peer group provides a good framework to analyze a company, but it certainly does not provide an exact price menu. For instance, if a company’s structural superiority is such that it is consistently able to generate a premium over the ROE of its peers, then it makes sense that its stock should also trade at a reasonable premium. Thus, when we discover companies like MLM that trade at lower-than-average multiples but perform at better-than-average margins, the value play analyst immediately thinks of *divergence*. For the purpose of this paper, divergence is that event where the price of a security inaccurately reflects its true, intrinsic value. The most interesting aspect of a divergence is that, because of the unorthodox nature, it tends to converge back to normal. A mispricing that is not supported by any strong fundamental reasons is likely to be re-priced in the future

**TABLE 4
PROFITABILITY COMPARISON BETWEEN MARTIN MARIETTA AND PEERS**

Relative Profitability (%)	Current	5 Year Avg.	BM Industry
Return on Equity	16.0	9.4	13.6
Return on Assets	8.4	5.1	5.0
Gross Margin	24.1	20.7	26.5

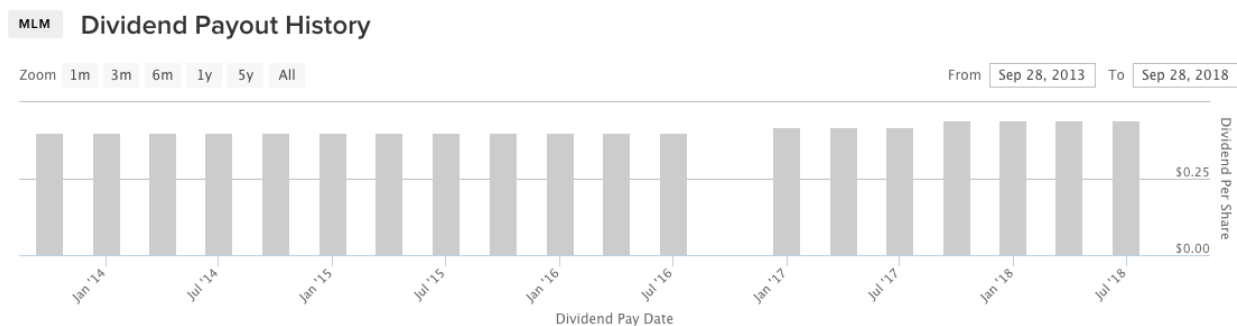
Operating Margin	18.3	14.4	9.7
Net Income Margin	17.8	9.6	6.0
FCF/Rev	7.0	6.7	5.7

Dividends

Examining dividends is an important part of the value play analysis. Like we will see in the Valuation section, the intrinsic value of a company can be thought of as the present value of all future cash flows available to equity holders. The most tangible way an investor can see those cash flows is through a company's dividends, which is why understanding the distribution policy becomes key. Using a Dividend Discount Model (DDM) is one technically-correct, but widely-uncommon way of valuing a business. Thus, analysts can simply evaluate a handful of metrics about a company's dividends that can contribute to form their overall investment idea. This is a snapshot of what a quick dividend analysis looks like for MLM currently:

- Dividend Yield: 1.12%, showing a positive trend.
- Annual Payout: \$1.92, in line with industry average.
- Payout Ratio: 18.17%, which shows the company is still investing a significant part of its earnings to generate growth.
- 3 Year Growth Rate: 4.80%, the company has been growing its dividend since 1996 and shows no signs of decreasing it anytime soon.

FIGURE 10
MARTIN MARIETTA DIVIDEND POLICY



CHECKLIST SUMMARY OF MLM VALUE PLAY WORTHINESS

Considering all of the individual pieces of financial information above, it is reasonable to conclude that MLM is a very stable company with no substantive financial issues in sight. If anything, MLM should be trading at a premium to its competitors and to its own history, as it has continuously improved its performance metrics to position itself as one of the clear industry leaders. Now that we know MLM is an increasingly profitable and healthy company, along the lines of Buffett's durability of competitive advantage, let us dive deeper into its valuation to determine if it is indeed a value play consistent with the remaining metrics.

Consolidating all of the accounting-based metrics above, 6 variables provide value play insight from the income statement. The values are thresholds that Buffett is comfortable with in judging the worthiness of a play. The corresponding MLM valuation and respective grade are also provided. The I/S parameters are mixed with 3 Passing and 3 Failing the durability of competitive advantage test. From the nine parameters from the balance sheet, 6 Pass and 3 Fail. Overall, 9/15 parameters on the checklist Pass and

6/15 Fail. A score of 60% Pass is not a strong value play score, but it is not a dealbreaker and is enough to continue the analysis.

VALUATION

Similar to financial analysis, analysts make an initial judgement about a company's valuation during the screening process, which helps to filter out expensive stocks. In this section, we will discuss some additional ways to assess the fair value of a stock when constructing a value play. Now that we know MLM stands out on a financial and an operational level from its past performance and from its industry and is worthy-enough candidate based on the durability of competitive advantage checklist, we can evaluate if the value is reflected in MLM's stock price.

Relative Valuation

The questions a value analyst tries to answer during the valuation process go beyond finding the intrinsic value of the stock. For example, one can go back to evaluate if the stock has traded at similar low multiples in the past, and especially how it performed after those instances. Figure 11 presents MLM's Forward P/E for the past 5 years: the dotted red line shows an average of 23.6x, and the yellow dotted lines delimit a single standard deviation. Forward P/E is an important measure because it considers projected earnings (ex ante) instead of reported earnings (ex post). Forward-looking metrics are more uncertain but might reflect better what investors are actually evaluating at the moment. The line shows how much investors have been willing to pay for projected earnings in the past.

TABLE 5
MEASURES FOR DURABILITY OF COMPETITIVE ADVANTAGE

Panel A: Income Statement	MLM	Value Grade
Gross Income Margin > 40%	25%	Fail
Selling and Administration Expense Margin < 30%	26%	Pass
Research and Development Margin < 10%	0%	Pass
Depreciation Margin < 10%	36%	Fail
Interest Expense Margin < 15%	14%	Pass
Net Income Margin > 20%	11%	Fail
Panel B: Balance Sheet	MLM	Value Grade
Lots of Cash and S-T Investments with Little Debt (MLM has \$44,892,000 in liquid assets and \$4,605,056,000 in debt.)		Fail
High Inventory with High Net Income (MLM has \$663,035,000 Inventory and \$469,998,000 Net Income.)		Pass
High Total Assets (which produces a barrier to entry) (MLM has \$9,500,000,000)		Pass
(S-T Debt + L-T Debt) / L-T Debt < 1	0.14	Pass
L-T Debt < 4X Net Income	1.4X greater	Fail
Total Debt/(Shareholders Equity + Treasury Stock) < 0.8	0.9	Fail
Growth in Retained Earnings > 6% per year	26%	Pass
Treasury Stock > 0 and history of stock buybacks	Yes	Pass
High Return on Equity every year	12%	Pass

**FIGURE 11
MARTIN MARIETTA PRICE/EARNINGS RATIOS**



As illustrated above, the only other time MLM traded below two standard deviations of its average forward P/E was in February of 2016, when the Materials sector was beaten down by the market. After that, MLM had a 52% return in the following 3 months, compared to a 20% return for the overall Materials sector and 12% for the S&P 500 Index. Even though past results do not determine future performance, discovering trends and understanding market behavior contributes to one’s overarching investment thesis.

Just like it makes sense to evaluate financial performance relative to competitors, it also makes sense to evaluate pricing against them. If the analysis reveals the company has a sound business model and is more profitable than its peers, then the company’s multiples should tell the same story. The Equity Relative Valuation function in Bloomberg - <EQRV> - lets analysts verify what the average trading premium has been for a stock and how that compares to the current premium of its peers. Figure 12 shows that MLM usually trades at a historical average 47% premium to its peers compared to the current 3% discount. It may be useful to look at this pricing dynamic from the ‘grocery shopper’ perspective; that is, if an item has exactly the same (or better) quality that it has had for years, the grocery shopper would likely rush to buy if the price dropped by 50% relative to similar products

**FIGURE 12
MARTIN MARIETTA RELATIVE VALUATION**

12) Taiwan Cement Corp	8.3x	-50%	-9%	-41%	-3.2		-50%	20%
13) Anhui Conch Cement Co Ltd	7.7x	-54%	-35%	-19%	-2.1		-58%	-11%
14) Martin Marietta Materials Inc	16.3x	-3%	47%	-50%	-2.1		-6%	103%
15) Eagle Materials Inc	12.3x	-26%	10%	-36%	-2.1		-26%	48%
16) China National Building Materi	4.6x	-72%	-54%	-18%	-1.3		-75%	-11%
17) Huaxin Cement Co Ltd	4.2x	-75%	-50%	-26%	-1.2		-79%	12%
18) PPC Ltd	10.8x	-35%	-19% *	-16%	-1.2		-52%	33%
19) Tangshan Jidong Cement Co L...	8.8x	-47%	44% *	-91%	-1.2		-52%	503%
20) Asia Cement China Holdings C...	4.6x	-73%	-54% *	-19%	-1.1		-80%	11%
21) Dangote Cement PLC	12.6x	-25%	-15%	-9%	-0.8		-45%	21%
22) Ambuja Cements Ltd	22.2x	32%	43%	-11%	-0.7		7%	78%
23) Sumitomo Osaka Cement Co L...	11.7x	-30%	-25%	-5%	-0.5		-49%	14%
24) ACC Ltd	23.5x	40%	49%	-8%	-0.4		1%	99%
25) Suez Cement Co SAE	10.9x	-35%	2% *	-37%	-0.4		-58%	474%

Grey values are excluded from group stats.

Discounted Cash Flow Model

It is common practice in the industry to build a discounted cash flow model (DCF) in the process of determining the intrinsic value of a company. Even though it is sometimes safer to build a model from scratch, Bloomberg and S&P Capital IQ also provide comprehensive DCF templates through their Excel plug-ins; analysts simply type the corresponding ticker and the spreadsheet populates automatically. The

Excel Templates <XLTP> function in Bloomberg takes you to a library of templates for a variety of purposes, one of which is aimed at discounting cash flows. Again, do not forget to leverage all the technological resources at your disposal. The purpose of this model is to project how much free cash flow will flow to the firm (or to equity holders) in the future, and then use a discount rate to find out the value today. If the present value of future free cash flows is significantly different from the current market price of the company, then a mispricing may be present that could open room for abnormal returns in the future. The two most common methods of calculating terminal value when performing a DCF are (1) perpetuity growth, and (2) terminal multiple. Table 6 presents Bloomberg’s DCF template results for both methods.

The empty yellow boxes allow the input customizable values and overrides the pre-determined WACC, EBITDA multiples, and perpetuity growth rates. To determine the value of a company, analysts can either use one of these two methods, or they can use a weighted average of both; it all depends on the rationale behind each case. They are both inherently limited and inaccurate predictors of value for obvious reasons: first, no company is going to grow at the same rate forever, which is why the terminal growth rate usually results in an overstated terminal value; and second, we already saw how difficult it can be to find comparable companies that deserve to trade, or “exit,” at the same level, which is why using an average multiple can be misleading. For these reasons, it is common for value analysts to use a weighted average that combines completely different valuation models such as comparative multiples, discounted cash flows, and sum-of-the-parts analysis. Performing some kind of sensitivity analysis, like the tables we see at the bottom of the Bloomberg template, is key because models can be very delicate to certain assumptions like cost of capital and terminal growth rate.

TABLE 6
MARTIN MARIETTA VALUATION FROM BLOOMBERG – PERPETUITY GROWTH

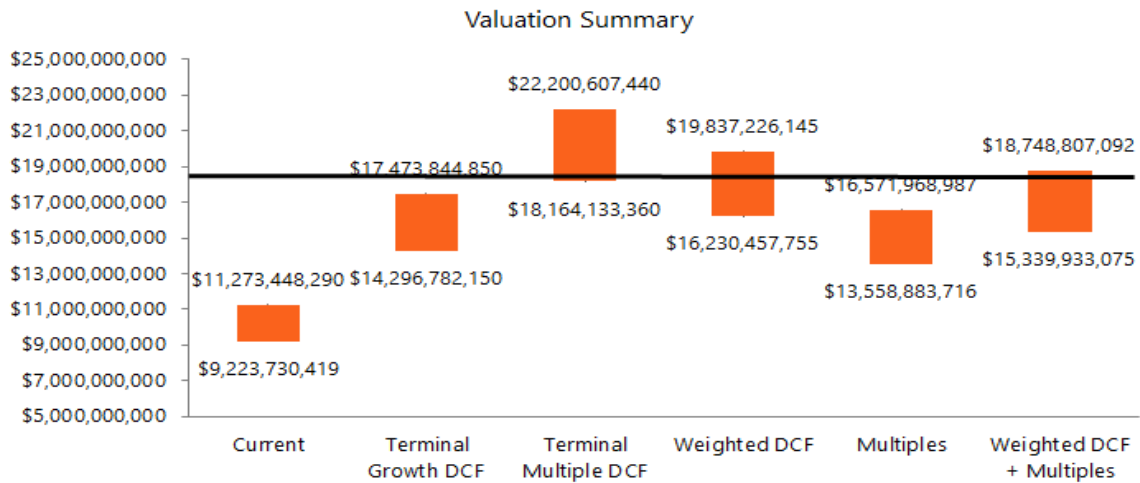
Perpetuity Growth Method - Sensitivity Analysis						
		Enterprise Value in Millions of USD				
		Perpetuity Growth				
Incremental change		0.5%				
		4.3%	4.8%	5.3%	5.8%	6.3%
Discount Rate (WACC)	8.1%	18,252	20,729	24,100	28,955	36,556
	8.6%	16,076	17,938	20,369	23,678	28,445
	9.1%	14,358	15,802	17,630	20,017	23,266
	9.6%	12,967	14,116	15,535	17,330	19,673
	10.1%	11,819	12,752	13,880	15,273	17,036
		Value in USD				
		4.3%	4.8%	5.3%	5.8%	6.3%
8.1%		264.32	303.62	357.12	434.18	554.80
8.6%		229.78	259.33	297.91	350.43	426.08
9.1%		202.51	225.44	254.45	292.33	343.89
9.6%		180.45	198.68	221.19	249.68	286.87
10.1%		162.22	177.03	194.94	217.04	245.01
		Upside Potential				
		4.3%	4.8%	5.3%	5.8%	6.3%
8.1%		61%	85%	118%	165%	239%
8.6%		40%	58%	82%	114%	160%
9.1%		24%	38%	55%	78%	110%
9.6%		10%	21%	35%	52%	75%
10.1%		-1%	8%	19%	32%	50%

TABLE 7
MARTIN MARIETTA VALUATION FROM BLOOMBERG – TERMINAL MULTIPLE

EBITDA Multiple Method - Sensitivity Analysis							
Incremental change		Enterprise Value in Millions of USD					
1.5x	0.5%	Terminal EBITDA Multiple					
		13.8x	15.3x	16.8x	18.3x	19.8x	
Discount		8.1%	19,315	21,130	22,944	24,759	26,573
Rate		8.6%	18,903	20,676	22,449	24,222	25,995
(WACC)		9.1%	18,502	20,235	21,968	23,701	25,433
		9.6%	18,112	19,805	21,499	23,193	24,886
		10.1%	17,732	19,387	21,043	22,698	24,354
		Value in USD					
		13.8x	15.3x	16.8x	18.3x	19.8x	
		8.1%	281.19	309.98	338.78	367.57	396.37
		8.6%	274.65	302.79	330.93	359.06	387.20
		9.1%	268.29	295.79	323.28	350.78	378.28
		9.6%	262.09	288.97	315.85	342.72	369.60
		10.1%	256.06	282.33	308.61	334.88	361.15
		Upside Potential					
		13.8x	15.3x	16.8x	18.3x	19.8x	
		8.1%	72%	89%	107%	124%	142%
		8.6%	68%	85%	102%	119%	136%
		9.1%	64%	81%	97%	114%	131%
		9.6%	60%	76%	93%	109%	126%
		10.1%	56%	72%	88%	104%	120%

As evidenced from Figure 13, any of the different valuation choices would yield an equity value for MLM that is significantly higher than its current market cap. This is an appropriate time to recall Benjamin Graham’s ‘Margin-of-Safety’ principle, which highlighted the importance of finding investments with a comfortable cushion. Buffett’s 20% and 30% discount to price rules stated earlier are also relevant now that the final value play investment decision is looming. In essence, a small deviation from a company’s intrinsic value is not enough justification for a value play. Instead, analysts should strive to find companies that have significant potential for upside, as this naturally increases the chances of the investments paying off. Trusting the market to lift prices up to your exact valuation is a very long shot, while having an ample range from which you can generate alpha is a more prudent assumption.

**FIGURE 13
MARTIN MARIETTA VALUATIONS FROM VARIOUS METHODOLOGIES**



ADDITIONAL CONSIDERATIONS

Just like in any type of research, the degree of diligence on value investing can go as far as the analyst decides. There are various additional steps that have not been discussed in the previous sections, but that are sometimes definitive in the prospect of an investment. These steps include things like analyzing the company’s management team, its board of directors, its regulatory environment, its legal standing, and so on. There are stocks plunging constantly due to news like new action lawsuits or new regulatory constraints, so covering all the bases can make any pitch stronger. Equally relevant, some hidden facts might make a stock much more attractive than it appears on the surface. For example, what if the newly appointed CEO of the company in question has a perfect track record of turning around businesses and streamlining their value chain? What if the company has a pending patent that will position it substantially above its competitors? These kinds of details can matter.

Even though value investing is a strategy based on fundamental metrics, some analysts might decide it is wise to consider some technical indicators as well. For instance, metrics such as the RSI and Bollinger bands confirmed the thesis that MLM was in oversold territory. Looking at moving averages can also help visualize possible price trends like trading ranges or key levels acting as support or resistance for the stock. You can weigh technical inputs as heavily as desired, probably depending on how strong the indicators are in each case.

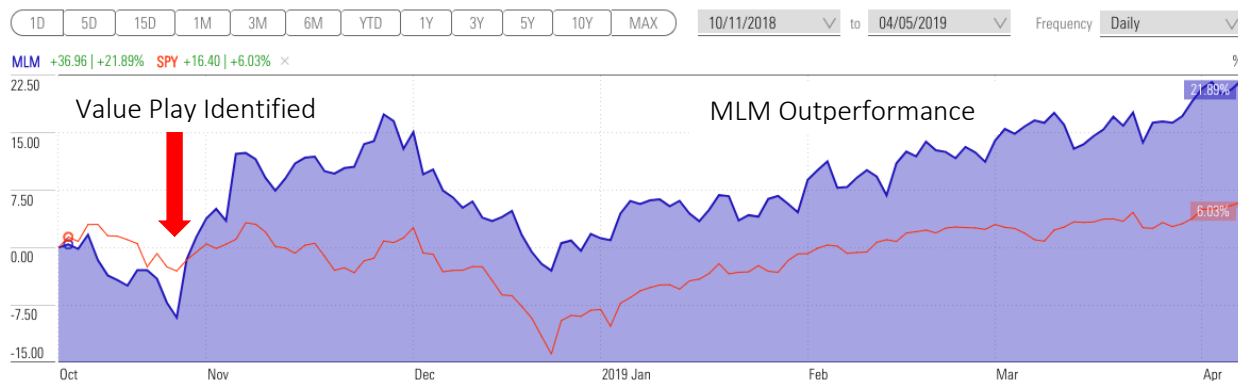
VALUE PLAY RECOMMENDATION

This paper began considering Martin Marietta in October 2018 during a period when the stock experienced downward pressure until it reached a low of \$152. With mid-term elections approaching, and the belief that a rise in infrastructure spending after the election could be a catalyst triggering a dramatic turnaround, further consideration of MLM as a value play ensued. A series of analyses involving economic and financial conditions supports the idea of the value play. Synthesizing the balance sheet and income statement information into a 15-point checklist also provides support for the play, albeit it marginal. The valuations indicate MLM is sufficiently undervalued. Consolidating all of these conclusions yields Martin Marietta out to be a worthy value play near the end of October.

MLM got plenty of attention at the start of November as investors started pricing in possible election results, and even more attention once the expected results were announced. The stock jumped to \$200 by

the end of November. In December, the broad market retreated, but MLM continued to hold a premium, and then started to intensify its divergence in the new year.

FIGURE 14
MARTIN MARIETTA PERFORMANCE RELATIVE S&P 500 INDEX



CONCLUSION

Determining if the value of a company has been impaired after a price reduction is trickier than evaluating the quality of a product on sale at the supermarket. After finding a stock that is trading at a discount, a value analyst has to embark on a series of steps aimed at discovering the reasonings behind the bargain. Throughout these steps, analysts usually find it more useful to look at relative datasets, like time-trends and peer groups, than to look at isolated numbers. The stock market can be very sensitive to negative changes (slower growth, for example) even if the overall picture is still positive. Thus, an ideal assessment puts data in perspective.

A structured value strategy that implements filters in a consistent manner is more likely to eliminate behavioral biases. Analysts might find one of the hardest aspects of making value investments is being strong enough to adhere to a pre-established set of principles. Looking at value is harder than looking at price, especially when it comes to unloved or neglected companies. Because of this added difficulty, what an analyst accomplishes by performing the holistic research process described above is eliminate most of the company-specific uncertainty. Similar to MLM, there are other financially-strong businesses operating in favorable economic environments and trading at wide, unjustified discounts. Value play stocks can outperform the market and produce superior returns, like those experienced by value play investors like Warren Buffett. This paper provides a methodology for identifying those kinds of winners.

REFERENCES

- DeBondt, W., & Thaler, R. (1985). Does the Stock Market Overreact? *The Journal of Finance*, 40(3), 793–805.
- Derousseau, R. (2018). Revenge of the Cheapskates. *Fortune*, 177(4), 32–35.
- Elze, G. (2012). Value investor anomaly: Return enhancement by portfolio replication-an empiric portfolio strategy analysis. *Central European Journal of Operations Research*, 20(4), 633–647.
- Kok, U-W., Ribando, J., & Sloan, R. (2017). Facts about Formulaic Value Investing. *Financial Analysts Journal*, 73(2), 81–99.
- Krueger, T.M. (2018). Gonzalez Energy Partners: A Hypothetical Teaching Case Study of Financial Statement Analysis and Firm Valuation. *Journal of Accounting & Finance* (2158–3625), 18(5), 74–85.

- Kulchev, K. (2017). The Interpretation of Financial Statements in Terms of Contemporary Financial Analysis. *Business Management / Biznes Upravljenje*, (1), 74–84.
- Lakonishok, J., Shleifer, A., & Vishny, R. (1994). Contrarian Investment, Extrapolation, and Risk. *The Journal of Finance*, 49(5), 1541–1578.
- Palazzo, V., Savoia, J.R.F., Roberto Securato, J., & Reed Bergmann, D. (2018). Analysis of value portfolios in the Brazilian market. *Revista Contabilidade & Finanças - USP*, 29(78), 452–468.
- Patel, K. (2018). Explaining Value vs. Growth Investing through Accounting Fundamentals. *Financial Analysts Journal*, 74(4), 31–32.